

The family Hypoderidae (Acari) in Australia

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Mites of the family Hypoderidae are recorded from Australia for the first time: *Neottialges* (*Pelecanectes*) *evansi* Fain from *Phalacrocorax carbo* (Linnaeus) (Phalacrocoracidae) (Tasmania), *N. (P.) tasmaniensis*, n. sp., from *P. fuscescens* (Vieillot) and *P. sulcirostris* (Brandt) (Tasmania and New South Wales, respectively), and *N. (P.) plegadicola* Fain from *Threskiornis spinicollis* (Jameson) (Threskiornithidae) (Victoria).

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Hypoderid mites are in general free-living, but the hypopial stage invades the subcutaneous tissues of birds and mammals (Fain and Laurence, 1974). A few species were listed from birds either of widespread distribution or introduced into Australia (Fain, 1967), but no specifically Australian material was previously known. We now record three species (of which one is new) taken from birds in south-eastern Australia.

Genus NEOTTIALGES Fain

Neottialges Fain, 1966: 325. Type-species *N. (N.) geopeliae* Fain.

Subgenus PELECANECTES Fain

Pelecanectes Fain, 1966: 326. Type-species *N. (P.) evansi* Fain.

Key to Australian species of *Neottialges*

1. Genital sclerite either complete or represented only by anterior half. Setae d_4 very long 2
Genital sclerite interrupted at mid-length. Setae d_4 short *tasmaniensis*, n. sp.
2. Genital sclerite complete *evansi* Fain
Genital sclerite represented only by anterior half *plegadicola* Fain

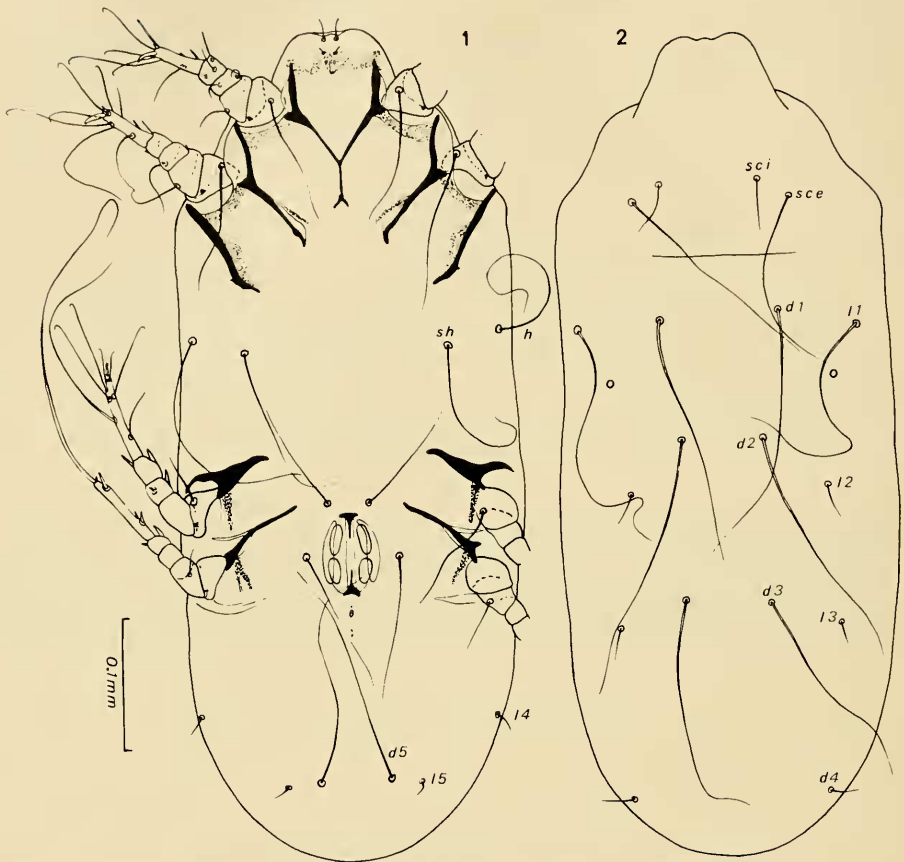
Neottialges (*Pelecanectes*) *evansi* Fain

N. (P.) evansi Fain, 1966: 327; 1967: 88; Černý, 1969: 272; Pence, 1972: 435; Schwan and Sileo, 1978: 522.

P. evansi (Fain): Fain and Beaucournu, 1972: 374.

Material. Many hypopial specimens from "subcutaneous nodule", black cormorant, *Phalacrocorax carbo* (Linnaeus) (Pelecaniformes: Phalacrocoracidae), near Scottsdale, Tasmania iii. 1977, R. W. Mason. In authors' institutes.

Notes. The only previous records were from various cormorants, *Phalacrocorax* spp., in England, France, Kenya, Cuba and the U.S.A.



Figs 1-2. *Neottialges (Pelecanectes) tasmaniensis* holotype hypopus. 1. Venter. 2. Dorsum.

Neottialges (Pelecanectes) tasmaniensis, n. sp.
(Figs 1-5)

Material. Holotype and 20 paratype hypopial specimens from "subcutaneous fascia infiltrated by mites", white-breasted cormorant, *P. fuscescens* (Vieillot), Beechford, Tasmania, 10.vi.1973, B. L. Munday. Holotype and one paratype (on same slide, holotype δ g., i.e. to left, nearer red label) in Australian National Insect Collection, CSIRO, Canberra; remaining paratypes in authors' institutes. Many specimens (not types), same data, in spirit.

Also many hypopial specimens (not types) found "subcutaneously on legs, neck and in particularly large concentration on the breast", little black cormorant, *P. sulcirostris* (Brandt), Lake Cowal, New South Wales, 18.v.1977, W. J. M. Vestjens. In ANIC and authors' institutes.

Hypopus. Idiosoma not constricted at mid-length, $630 \times 270 \mu\text{m}$ (holotype), $640 \times 265 \mu\text{m}$ (paratype). Cuticle poorly sclerotized; dorsum and coxae without punctate shields. Palposomal sclerite wider ($33 \mu\text{m}$) than long ($15 \mu\text{m}$) (Fig. 1). Epimera I fused; sternum proper forked posteriorly, $36 \mu\text{m}$ long. Genital suckers longer than wide, not divergent posteriorly. Genital sclerite represented by anterior T-

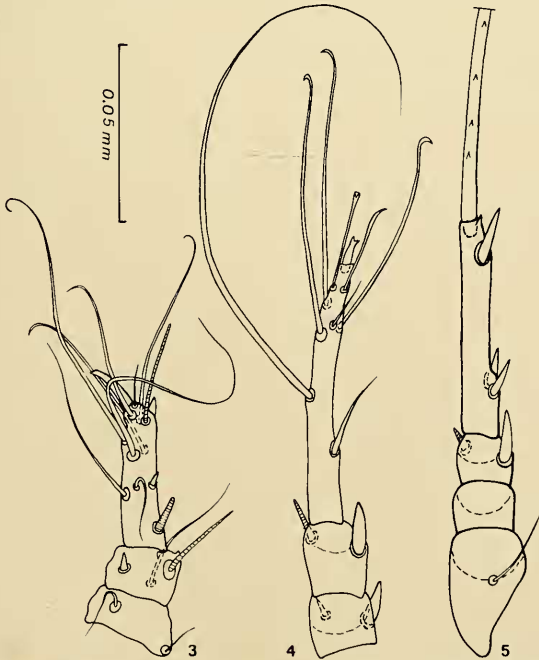
shaped and posterior inverted T-shaped parts. Dorsal setae $d_{1-3, 5}$ and l_1 very long (175-225 μm); l_{2-5} and d_4 short (not above 25 μm) (Fig. 2). Legs not unduly shortened. Tarsi I-IV 39, 42, 72 and 60 μm long, respectively. Tarsus I with eight piliform setae, three spines and two solenidia (terminal spine on tarsi I-II shorter than corresponding segment) (Fig. 3); tarsus III with eight piliform setae and one terminal spine (Fig. 4); tarsus IV shorter than tarsus III, with three spines (two basals at same level) and one elongate, barbulate terminal seta (Fig. 5).

Notes. The new species is known only in the hypopial stage. It belongs to a small group characterized by the centrally interrupted genital sclerite and the short to very short setae l_{2-5} and (usually) d_4 . The group previously contained three species: *N. (P.) bassani* (Montagu) from a sulid (Europe and southern Atlantic), and *N. (P.) ajajae* Fain and *N. (P.) montagui* Fain, both from a threskiornithid (transported from North America to the Antwerp Zoo). The new species differs from *N. (P.) bassani* in having seta d_4 set more laterally, tarsi III-IV of unequal lengths and no spine on tarsus III at midlength. It differs from *N. (P.) ajajae* in having seta d_4 much shorter, tarsi III-IV of more unequal lengths and a different disposition of spines on tarsus IV. Nearest to *N. (P.) montagui*, to which it runs in Fain's key (1967), it differs therefrom in having the body smaller, the palposomal sclerite much wider than long, the sternum longer, tarsi I-II much shorter (39 and 42 μm vs 48 and 51 μm , respectively), a different disposition of basal spines on tarsus IV (at same vs different levels) and the trochanteral setae much longer.

Neottialges (Pelecanectes) plegadicola Fain

N. (N.) plegadicola Fain, 1966: 326.

N. (N., sic — recte P.) plegadicola Fain: Fain, 1967: 94.



Figs 3-5. *Neottialges (Pelecanectes) tasmaniensis* hypopus. 3. Leg I. 4. Leg III. 5. Leg IV.

Material. Hypopial specimens from "subcutaneous tissue around the cloaca . . . in clumps and in fairly large numbers", straw-necked ibis (adult), *Threskiornis spinicollis* (Jameson) (Ciconiiformes: Threskiornithidae), rookery on Lake Corangamite, Victoria, ix.1973, J. H. Arundel and K. Harrigan. In authors' institutes.

Notes. The only previous record was from the glossy ibis, *Plegadis falcinellus* (Linnaeus) (Threskiornithidae), in Belgium. This bird species also occurs in Australia.

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Corrigendum:

These *Proceedings*, vol. 101, page 200, line 38 — delete "(?)"